#### **DECLARATION & POWER OF ATTORNEY**

As a below-named inventor, I hereby declare that:

My correct residence, post office address and citizenship are stated below next to my name.

I believe myself to be the original, first and sole inventor (if only one name is listed below) or an original and first joint inventor (if more than one name is listed below) of the subject matter which is disclosed and claimed and for which a patent is sought on the invention entitled:

### "Dynamic Multi-Hop Ingress to Egress L2TP Tunnel Mapping"

| Χ | is attached hereto.     |
|---|-------------------------|
|   | was filed on;           |
|   | was assigned serial No; |
|   | which was amended on    |

The specification of this subject matter:

I hereby state that I have reviewed and understand the contents of the above-identified patent application, including the claims, as amended by any amendment(s) referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. §1.56(a).

I hereby claim foreign priority benefits under 35 U.S.C. §119 (a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

| Prior Foreig | n Application(s) |                      |     |    | Priority Claimed |
|--------------|------------------|----------------------|-----|----|------------------|
| Number       | Country          | Month/Day/Year Filed | Yes | No |                  |
| Number       | Country          | Month/Day/Year Filed | Yes | No |                  |
| Number       | Country          | Month/Day/Year Filed | Yes | No |                  |

| I hereby claim the benefit under | 35 U.S.C. | §119(e) of any | United States p | rovisional application | (s) |
|----------------------------------|-----------|----------------|-----------------|------------------------|-----|
| listed below:                    |           |                | ,               | opposition             | ,0, |

| Application Number | Filing Date | · |
|--------------------|-------------|---|
| Application Number | Filing Date |   |

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in these prior United States application(s) in the manner provided by 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

| Application No. | Filing Date | Status (Issued, Pending, Abandoned) |
|-----------------|-------------|-------------------------------------|
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I hereby appoint David B. Ritchie, Registration No. 31,562; Marc S. Hanish, Registration No. 42,626; John P. Schaub, Registration No. 42,125; Gerhard W. Thielman, Registration No. 43,186; Adrienne Yeung, Registration No. 44,000; Steven J. Robbins, Registration No. 40,299 and William Samuel Niece, Registration No. P 47,824 as attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.

Please send all correspondence and direct all telephone calls to:

David B. Ritchie
Thelen Reid & Priest LLP
P.O. Box 640640
San Jose, CA 95164-0640
Telephone (408) 292-5800

I, the undersigned, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

| INVENTOR 1                                                                          | FIRST Name                       | MIDDLE Initial(s)                | LAST Name                     |                       |
|-------------------------------------------------------------------------------------|----------------------------------|----------------------------------|-------------------------------|-----------------------|
|                                                                                     | Aravind                          |                                  | Sitaraman                     |                       |
| RESIDENCE AN<br>CITIZENSHIP                                                         |                                  | State or Foreign Country         |                               | itizenship            |
|                                                                                     | Bangalore                        | Karnataka, India                 | India                         |                       |
| POST OFFICE<br>ADDRESS                                                              | Number and Street                | City                             | State or Country              | Zip Code              |
|                                                                                     | 40 Netaji Road, Nidhi Apartments | , #302, Bangalore, Karnatak      | a, India                      | 560005                |
|                                                                                     |                                  |                                  |                               |                       |
|                                                                                     |                                  |                                  |                               |                       |
|                                                                                     | FIRST Name                       | MIDDLE Initial(s)                | LAST Name                     |                       |
|                                                                                     | FIRST Name                       | MIDDLE Initial(s)                |                               |                       |
| INVENTOR 2<br>RESIDENCE AN                                                          | Purnam                           | .,                               | LAST Name Sheth Country of Ci | tizenship             |
| INVENTOR 2<br>RESIDENCE AN<br>CITIZENSHIP                                           | Purnam<br>ID City<br>Livermore   | Anil                             | Sheth                         | tizenship             |
| FULL NAME OF<br>INVENTOR 2<br>RESIDENCE AN<br>CITIZENSHIP<br>POST OFFICE<br>ADDRESS | Purnam<br>ID City                | Anil<br>State or Foreign Country | Sheth<br>Country of Ci        | tizenship<br>Zip Code |

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1

Date

Signature of Inventor 2

Date

# 37 C.F.R. §1.56 Duty to disclose information material to patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1,97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
  - (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
  - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
    - (2) It refutes, or is inconsistent with, a position the applicant takes in:
      - (i) Opposing an argument of unpatentability relied on by the Office, or
      - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
  - (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

### **DECLARATION & POWER OF ATTORNEY**

As a below-named inventor, I hereby declare that:

My correct residence, post office address and citizenship are stated below next to my name. I believe myself to be the original, first and sole inventor (if only one name is listed below) or an original

| and first join                                                                                                                   | nt inventor (if more t                                                                                                                                                                                                                                           | an one name is listed below) of the                                             | cubicat ma                                                                                                                                        | ttor whi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ah ia diaalaaad and                                                                                                                          |
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|                                                                                                                                  |                                                                                                                                                                                                                                                                  | nan one name is listed below) of the                                            | subject ma                                                                                                                                        | iter whic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on is disclosed and                                                                                                                          |
| claimed and                                                                                                                      | for which a patent                                                                                                                                                                                                                                               | is sought on the invention entitled:                                            |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
|                                                                                                                                  | "Dynamic I                                                                                                                                                                                                                                                       | Multi-Hop Ingress to Egress L2TP                                                | Tunnel Ma                                                                                                                                         | pping"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                              |
| The specific                                                                                                                     | ation of this subject                                                                                                                                                                                                                                            | matter:                                                                         |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
| Х                                                                                                                                | is attached here                                                                                                                                                                                                                                                 | eto.                                                                            |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
|                                                                                                                                  | was filed on                                                                                                                                                                                                                                                     | ·;                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
|                                                                                                                                  | was assigned s                                                                                                                                                                                                                                                   | erial No;                                                                       |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
|                                                                                                                                  | which was ame                                                                                                                                                                                                                                                    | nded on;                                                                        |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                              |
| application, do not belie my invention the sale in the L has not bee application i legal repres (for a design l ac application i | including the claims we that the claimed in thereof, or patente ereof or more than of Jnited States of American patented or made in any country foreign entatives or assigns in patent application) knowledge the duty in accordance with 3 reby claim foreign p | riority benefits under 35 U.S.C. §119                                           | referred to<br>the United<br>ation in any<br>the same value<br>application<br>te issued be<br>an applica<br>ty patent application<br>erial to the | above. States of country was not in, and the effore the optication examination of the country of the examination of the examina | I do not know and of America before before my in public use or on at the invention date of this d by me or my n) or six months ation of this |
| patent or involved.                                                                                                              | r inventor's certificat<br>ventor's certificate h                                                                                                                                                                                                                | e listed below and have also identifications a filing date before that of the a | ed below an<br>application                                                                                                                        | y foreig<br>on whicl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n application for<br>n priority is                                                                                                           |
| Prior Foreig                                                                                                                     | n Application(s)                                                                                                                                                                                                                                                 |                                                                                 |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Priority Claimed                                                                                                                             |
| Number                                                                                                                           | Country                                                                                                                                                                                                                                                          | Month/Day/Year Filed                                                            | Yes                                                                                                                                               | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                              |
| Number                                                                                                                           | Country                                                                                                                                                                                                                                                          | Month/Day/Year Filed                                                            | Yes                                                                                                                                               | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                              |
| Number                                                                                                                           | Country                                                                                                                                                                                                                                                          | Month/Dav/Year Filed                                                            | Yes                                                                                                                                               | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 48//8/                                                                                                                                       |

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

| Application Number | Filing Date |  |
|--------------------|-------------|--|
| Application Number | Filing Date |  |

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in these prior United States application(s) in the manner provided by 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

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P.O. Box 640640
San Jose, CA 95164-0640
Telephone (408) 292-5800

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Docket No. CISCO-3287

| RESIDENCE AND CITIZENSHIP POST OFFICE ADDRESS FULL NAME OF INVENTOR 2   | Aravind ) City  Bangalore  Number and Street  40 Netaji Road, Nidhi Apartments, a                                                                                                           | MIDDLE Initial(s)  State or Foreign Country  Karnataka, India City  #302, Bangalore, Karnataka | LAST Name  Sitaraman Country of Citi  India State or Country  a, India | izenship Zip Code 560005    |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------|
| RESIDENCE AND CITIZENSHIP  POST OFFICE ADDRESS  FULL NAME OF INVENTOR 2 | Bangalore Number and Street  40 Netaji Road, Nidhi Apartments, a                                                                                                                            | Karnataka, India<br>City                                                                       | Country of Citi<br>India<br>State or Country                           | Zip Code                    |
| RESIDENCE AND CITIZENSHIP POST OFFICE ADDRESS FULL NAME OF INVENTOR 2   | Bangalore Number and Street  40 Netaji Road, Nidhi Apartments, a                                                                                                                            | Karnataka, India<br>City                                                                       | Country of Citi<br>India<br>State or Country                           | Zip Code                    |
| ADDRESS  FULL NAME OF INVENTOR 2                                        | Number and Street<br>40 Netaji Road, Nidhi Apartments, i                                                                                                                                    | City                                                                                           | India<br>State or Country                                              | ,                           |
| ADDRESS  FULL NAME OF INVENTOR 2                                        | Number and Street<br>40 Netaji Road, Nidhi Apartments, i                                                                                                                                    | City                                                                                           | •                                                                      | ,                           |
| FULL NAME OF<br>INVENTOR 2                                              |                                                                                                                                                                                             | #302, Bangalore, Karnataka                                                                     | a, India                                                               | 560005                      |
| INVENTOR 2                                                              |                                                                                                                                                                                             |                                                                                                |                                                                        |                             |
| INVENTOR 2                                                              |                                                                                                                                                                                             |                                                                                                |                                                                        |                             |
|                                                                         | FIRST Name                                                                                                                                                                                  | MIDDLE Initial(s)                                                                              | LAST Name                                                              |                             |
|                                                                         | Purnam                                                                                                                                                                                      | Anil                                                                                           | Sheth                                                                  |                             |
| RESIDENCE AND<br>CITIZENSHIP                                            |                                                                                                                                                                                             | State or Foreign Country                                                                       | Country of Cit                                                         | izenship                    |
|                                                                         | Livermore                                                                                                                                                                                   | California                                                                                     | Canada                                                                 |                             |
| POST OFFICE<br>ADDRESS                                                  | Number and Street                                                                                                                                                                           | City                                                                                           | State or Country                                                       | Zip Code                    |
|                                                                         | 887 Roma Street                                                                                                                                                                             | Livermore                                                                                      | California                                                             | 94550                       |
| upon information a<br>that willful false sta<br>Section 1001 of T       | declare that all statements made he<br>and belief are believed to be true; a<br>atements and the like so made are<br>itle 18 of the United States Code, a<br>or any patent issuing thereon. | nd further that these statem<br>punishable by fine or impris                                   | nents were made with the<br>sonment, or both, under                    | e knowledge<br>the validity |
|                                                                         |                                                                                                                                                                                             | Signature of Inve                                                                              | entor 2                                                                | <u> </u>                    |

## 37 C.F.R. §1.56 Duty to disclose information material to patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1,97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
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- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
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- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
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